

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of managing a connection between plurality of devices in a network system, wherein a first device for transmitting data using a predetermined data transmission format and a second device for receiving the data are connected by a predetermined digital interface through a connection established by a control device, the method comprising:

(a) transmitting a connection management command from a control device to at least one of the first device and the second device, wherein the connection management command specifies at least one connection status parameter bit field of an output plug control register of the first device or an input plug control register of the second device ~~for which~~ and indicates that the control device desires to be notified of a future change of the connection status parameter bit field specified in the connection management command; and

(b) transmitting from the at least one of the first and second devices a response to the connection management command informing the control device of a change in the connection status parameter bit field which occurs in the at least one of the first and second devices, wherein the control device is one of the first device, the second device and a third device.

2. (Canceled)

3. (Previously Presented) The method of claim 1, wherein the control device is the third device which established the connection between the first and second devices.

4. (Original) The method of claim 1, wherein the predetermined digital interface is an IEEE 1394 format and the predetermined data transmission format is an IEC 61883 format.

5. (Currently Amended) The method of claim 1, ~~wherein the connection status parameter is a bit field of the output plug control register within the first device for transmitting information or a bit field of the input plug control register within the second device for receiving the information, and~~

wherein the output plug control register and input plug control register are registers for controlling a connection defined in an IEC 61883 format.

6. (Currently Amended) The method of claim 1, wherein the connection status parameter bit field is a bit field representing on-line or off-line of the first device for transmitting data.

7. (Currently Amended) The method of claim 1, wherein the connection status parameter bit field is a bit field representing on-line or off-line is changed in the second device for receiving data.

8. (Currently Amended) The method of claim 1, wherein the change in the connection status parameter bit field is a change in a payload bit field resulting from a change in bandwidth of output information in the first device for transmitting information.

9. (Currently Amended) The method of claim 1, wherein the connection status parameter bit field is a connection counter bit field which changes depending on a change in the number of devices for receiving information from the first device.

10. (Original) The method of claim 9, further comprising preventing additional devices from receiving information from the first device, if the number of devices for receiving information from the first device is increased to more than the second device.

11. (Currently Amended) A connection management method comprising the steps of:
(a) establishing a connection between a first device for transmitting information using a predetermined data transmission format and a second device for receiving the information, wherein said first and second devices are connected by a predetermined digital interface;

(b) transmitting a connection management command for controlling a connection management status to at least one of the first and second devices, wherein the connection management command specifies at least one connection status parameter bit field of an output plug control register of the first device or an input plug control register of the second device and indicates that the control device desires to be notified of a future change of the at least one connection status parameter bit field specified in the connection management command; and

(c) controlling the connection between the first and second devices when a response to the connection management command indicating a change in the connection status parameter bit field is received.

12. (Original) The method of claim 11, wherein the predetermined digital interface is an IEEE 1394 format, and the predetermined data transmission format is an IEC 61883 format.

13. (Original) The method of claim 11, wherein, in the step (b), the connection management command complies with a notify command form of a format of audio-video/control command transaction sets.

14. (Currently Amended) The method of claim 11, ~~wherein, in the step (c), if a bit field of an input plug control register or an output plug control register is changed, a response to the connection management command is received~~, wherein the input and output plug control registers are connection control registers defined by an IEC 61883 format.

15. (Original) The method of claim 11, wherein, in the step (c), if the response to the connection management command indicates a change of a bit field representing an on-line or off-line status the first device for transmitting information, a connection is broken or established with the first device.

16. (Original) The method of claim 11, wherein, in the step (c), if the response to the connection management command indicates a change in a bit field representing an on-line or off-line status in the second device for receiving information, a connection is broken or established with the second device.

17. (Original) The method of claim 11, wherein, in the step (c), if the response to the connection management command indicates a change in a payload bit field resulting from a change in a bandwidth of output information in the first device for transmitting information, a connection is terminated or established based on whether the bandwidth of the output information can be accepted by the second device.

18. (Original) The method of claim 11, wherein, in the step (c), if the response to the connection management command indicates a change in a connection counter bit field due to an additional device for receiving information in the first device for transmitting information, a connection of the additional device is broken or established.

19. (Original) The method of claim 18, wherein the step (c) further comprises the step of informing a user in order to stop devices other than the second device from receiving information, if the number of the devices for receiving information from the first device for transmitting information is changed and a private connection is established.

20. (Currently Amended) A command structure for indicating a connection status change between a plurality of devices having a connection which is established in a network system wherein a first device for transmitting data through a predetermined data transmission format and a second device for receiving the data are connected by a predetermined digital interface, the command structure comprising:

connection register information which represents an output plug control register within the first device for transmitting information or an input plug control register within the second device for receiving information; [[and]]

identification information indicating an input or output plug at which a connection is established; and

an operand for designating at least one connection status parameter bit field of the output plug control register or the input plug control register, wherein command structure indicates that a control device desires to be notified of a future change of the at least one connection status parameter bit field specified in the connection management command.

21. (Original) The command structure of claim 20, wherein the command structure complies with a format of audio-video/control command transaction sets.

22. (Original) The command structure of claim 20, wherein the predetermined digital interface is an IEEE 1394 format, and the predetermined data transmission format is an IEC 61883 format.

23. (Canceled).

24. (Original) The command structure of claim 20, further comprising an operand indicating whether the connection is for a private purpose.

25. (New) The method of claim 1, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field, a channel number bit field, a data rate bit field, an overhead ID bit field and a payload bit field of the output plug control register of the first device.

26. (New) The method of claim 1, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field and a channel number bit field of the input plug control register of the second device.

27. (New) The method of claim 11, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field, a channel number bit field, a data rate bit field, an overhead ID bit field and a payload bit field of the output plug control register of the first device.

28. (New) The method of claim 11, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field and a channel number bit field of the input plug control register of the second device.

29. (New) The command structure of claim 20, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field, a channel number bit field, a data rate bit field, an overhead ID bit field and a payload bit field of the output plug control register of the first device.

30. (New) The command structure of claim 20, wherein the connection status parameter bit field is one of an on-line bit field, a broadcast connection counter bit field, a point-to-point connection counter bit field and a channel number bit field of the input plug control register of the second device.